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CLAIM LISTING

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A method of synchronizing encrypted data in an Internet Protocol based network, comprising the steps of:

encrypting a data packet to be transmitted;

generating a sequence number associated with said encrypted data packet; and transmitting said encrypted data packet together with said sequence number via an Internet Protocol based link.

- 2. (Original) The method according to claim 1, further comprising receiving said encrypted data packet together with said sequence number and decrypting said encrypted data packet based on a value of said sequence number.
- (Original) The method according to claim 2, further comprising checking said decrypted data packet for errors and sending an error message if errors are detected in a predetermined number of data packets.
- 4. (Original) The method according to claim 3, further comprising initiating a data recovery procedure after reception of said error message.
- 5. (Original) The method according to claim 4, further comprising resetting said sequence number to an initial value after initiating said data recovery procedure.
- 6. (Original) The method according to claim 5, further comprising issuing a sequence number reset notification message after resetting said sequence number.

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- 7. (Original) The method according to claim 1, further comprising setting a length of said sequence number based on an amount of jitter in said Internet Protocol based link.
- 8. (Original) The method according to claim 7, further comprising dynamically adjusting said length of said sequence number to compensate for changes in said amount of jitter in said Internet Protocol based link.
- 9 (Original) An apparatus for synchronizing encrypted data in an Internet Protocol based network, comprising:

an encryption/decryption module configured to encrypt a data packet to be transmitted;

a sequence number processor in said encryption/decryption module configured to generate a sequence number associated with said encrypted data packet; and

a transceiver module connected to said encryption/decryption module configured to transmit said encrypted data packet together with said sequence number via an internet Protocol based link.

- 10. (Original) The apparatus according to claim 9, wherein said sequence number processor is further configured to extract a sequence number from a received encrypted data packet.
- 11. (Original) The apparatus according to claim 10, wherein said encryption/decryption module is further configured to decrypt said encrypted data packet based on a value of said extracted sequence number.
- 12. (Original) The apparatus according to claim 11, further comprising an error detection module configured to check said decrypted data packet for errors and to cause an error message to sent if errors are detected in a predetermined number of data packets.

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- 13. (Original) The apparatus according to claim 12, wherein said error detection module is further configured to initiate a data recovery procedure upon detecting that errors have occurred in said predetermined number of data packets.
- 14. (Original) The apparatus according to claim 13, wherein said sequence number processor is further configured to reset said sequence number to an Initial value after initiation of said data recovery procedure.
- 15. (Original) The apparatus according to claim 14, wherein said sequence number processor is further configured to issue a sequence number reset notification message after said sequence number is reset.
- 16. (Original) The apparatus according to claim 9, wherein said sequence number processor is further configured to set a length of said sequence number based on an amount of jitter in said Internet Protocol based link.
- 17. (Original) The apparatus according to claim 16, wherein said sequence number processor is further configured to dynamically adjust said length of said sequence number to compensate for changes in said amount of jitter in said Internet Protocol based link.
- 18. (Original) An apparatus for synchronizing encrypted data in an internet Protocol based network, comprising:
- an encryption/decryption module configured to encrypt a data packet to be transmitted:
- a sequence number processor in said encryption/decryption module configured to generate a sequence number associated with said encrypted data packet:
- a transceiver module connected to said encryption/decryption module configured to transmit said encrypted data packet together with said sequence number via an Internet Protocol based link, wherein said sequence number processor is further configured to extract a sequence number from a received encrypted data packet, and

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said encryption/decryption module is further configured to decrypt said encrypted data packet based on a value of said extracted sequence number; and

an error detection module configured to check said decrypted data packet for errors and to cause an error message to be sent if errors are detected in a predetermined number of data packets, said error detection module being further configured to initiate a data recovery procedure upon detecting that errors have occurred in said predetermined number of data packets, wherein said sequence number processor is further configured to reset said sequence number to an initial value after initiation of said data recovery procedure and to issue a sequence number reset notification message after said sequence number is reset.